

Part 3 -- Remarks

This Amendment and Response is responsive to the office action mailed December 14, 2004. In that office action, claims 1-4, 8-10, 14 and 15 were rejected under 35 U.S.C. 102(b) as being anticipated by Kitahata (U.S. Patent 6,686,753); and claims 5-7 and 11-13 were noted as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 16-20 have been withdrawn from consideration as being nonelected claims.

Reconsideration of these objections and rejections is respectfully requested, with respect to the pending claims 1-15.

Allowable Claims

Amended claim 5 has been rewritten into independent form by including subject matter from claims 1 and 4. Amended claim 5 does not include subject matter from intervening claim 2 or all of the subject matter of intervening claim 4 because it is not believed that this subject matter is necessary for patentability since claims 2 and 4 were rejected. Amended claim 11 has been rewritten into independent form by including subject matter from claims 1 and 8. It is believed that amended claims 5 and 11 as well as claims 6, 7 and 10-13 are in form for allowance.

Canceled Claims

Please cancel non-elected claims 16-20.

Anticipation Rejection

Reconsideration of the rejection of claims 1-5, 8-12, 14 and 15 as anticipated by Kitahata is respectfully requested.

Claim 1 of the present application involves failure analysis of an integrated circuit (IC) while the IC is still part of a wafer. Performing failure analysis testing while the IC is still part of the wafer allows multiple ICs on the wafer to be probed with relatively little time lost between tests. The probes can be raised from contact with one IC and moved over and lowered into contact with another IC on the same wafer, as

described in the specification on page 8, lines 6-9, without having to remove and replace the wafer and then realign the probes for each different IC on the wafer.

Kitahata involves the optical analysis of a semiconductor chip after it has been cut from a semiconductor wafer. Kitahata states that an advantage to probing on a chip by chip basis is that the prober can have a reduced size and reduced cost, and since vacuum is not used to secure the chips, that chips of various shapes can be fixed to the device. See column 5, lines 25-32.

Probing an IC that is part of a wafer is not disclosed in Kitahata. Probing an IC that is part of a wafer is different than probing a semiconductor chip that has been cut from a wafer. There are different structures involved in each technique and different advantages are obtained by each. For example, the probes used to probe a wafer must be able to reach an IC on any part of the wafer, which is typically much larger than a semiconductor chip. Also, the mounting plate for securing a wafer is larger than what is used to hold a single semiconductor chip, and the mounting plate cannot rely on the probes to secure the wafer when the mounting plate is inverted, like Kitahata does with a single semiconductor chip. When probing more than a single semiconductor chip, one chip must be removed and replaced with a new chip. When probing a wafer, more than one IC can be probed without having to remove the wafer from the mounting plate. Therefore, there is considerable time savings in probing multiple IC's on a wafer compared to probing separate semiconductor chips one at a time.

In addition to not disclosing probing an IC that is part of a wafer, Kitahata does not suggest probing an IC that is part of a semiconductor wafer. In fact, Kitahata appears to teach away from performing failure analysis on an IC while it is part of a semiconductor wafer because Kitahata states advantages to probing a semiconductor chip that has been cut away from a wafer such as the Kitahata probers reduced size.

Since Kitahata does not teach or appear to suggest probing an IC on a wafer as required in claim 1, Kitahata does not anticipate claim 1. It is therefore requested that

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claim 1 be allowed. In addition, dependent claims 2-4, 8-10, 14 and 15 depend from claim 1 and therefore include the same requirements as claim 1, accordingly these dependent claims should be allowable in conjunction with claim 1.

Conclusion

As a result of the amendment and remarks set forth above, it is believed that all pending claims in this application are in condition for allowance. Allowance is respectfully requested. The Examiner is requested to contact the undersigned by telephone to discuss any issues which may inhibit the immediate allowance of the claims.

Respectfully submitted,

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